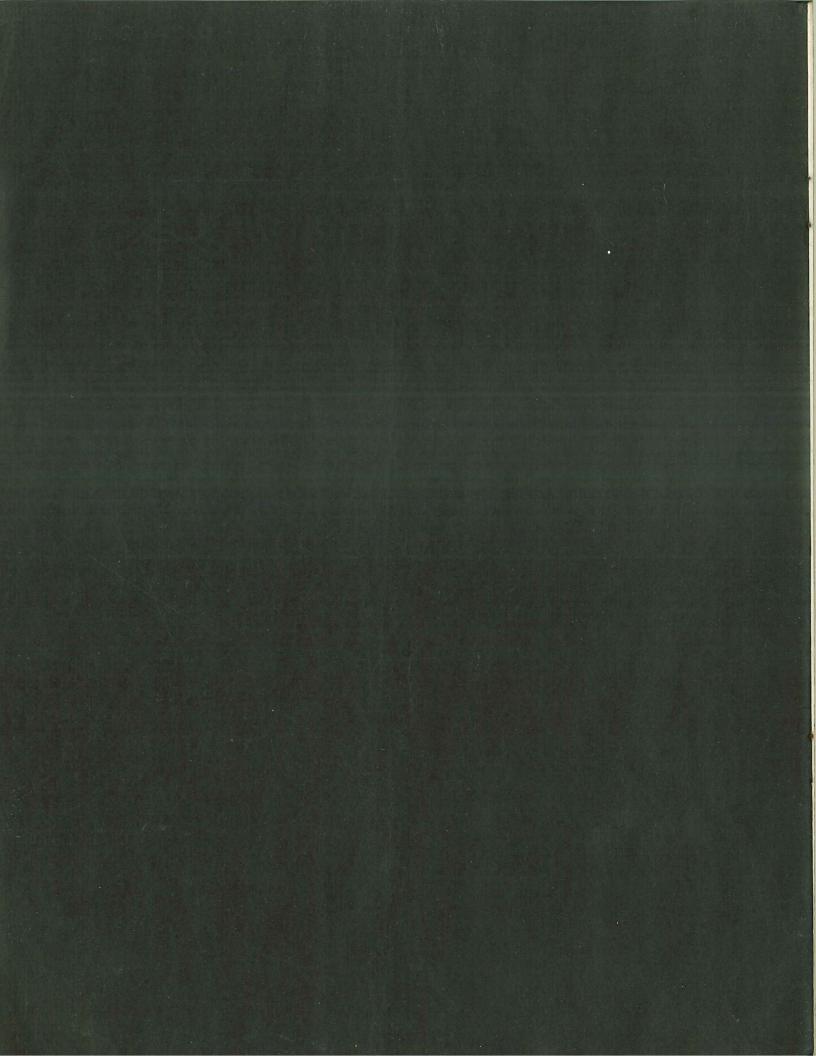
CATALOG 31

J.G. BRAUN COMPANY
DISTRIBUTORS OF
ARCHITECTURAL SHAPES IN
"ALCOA" ALUMINUM

WAREHOUSES CHICAGO, ILL. SANFRANCISCO, CAL. NEW YORK, N.Y. LOS ANGELES, CAL.

MA. FILE Nº 15



# Architectural Shapes in "ALCOA" ALUMINUM



Distributors

## J. G. BRAUN COMPANY

CHICAGO, ILL. 609-615 South Pauline Street NEW YORK, N. Y. 537-541 West 35th Street SAN FRANCISCO, CAL. 636 Potrero Ave. LOS ANGELES, CAL. 1205 East 8th Street

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4701		8		12		18
470216		8				1.8

#### INTRODUCTION

We are again taking the lead in offering a service both from stock and from mill in a metal used for many years successfully in many industries but comparatively a newcomer in the architectural field, ALUMINUM.

In approaching this problem, we have decided to attack it from the broadest angle relative to architectural practice. We offer from stock, a comprehensive series of sections of all types for architectural and decorative work, and upon this foundation we will continue to build and develop new sections as the demand will necessitate and carry a still larger range, eventually. From mill we are enabled to furnish sections to architect's design, thus meeting every requirement.

More than ever, we require the helpful suggestions and cooperation both of the architect and of the worker in metal, for without their assistance, progress will be slow. We, therefore, invite frequent comments and helpful criticism.

We sincerely hope that this new departure will prove as much of a help and success as our Steel Mouldings, Ornaments and Perforated Sheets have been in the past.

#### GENERAL INFORMATION

#### MATERIAL

Since Aluminum has come to be used profusely in the architectural and decorative fields, it may be in order to give some general and specific data.

For architectural purposes, Aluminum fills a long felt want in supplying the silver-like polish or soft finishes of various types that are now finding such common application. It is obtainable in many commercial forms, such as castings, forgings, rolled, drawn and extruded shapes, the latter of which largely covers the materials shown in this catalog. All of these various forms find use in the building scheme. With the development of various alloys has come the possibility of using Aluminum in every direction. Thus we can furnish Aluminum sections having a strength comparing favorably with that of steel and, in some instances, even exceed it.

We give below the essential technical data that concerns itself most with architectural work.

#### TECHNICAL INFORMATION

#### Specific Gravity:

Aluminum Alloy—35....2.74

Brass.............8.51—3.06 times weight of aluminum

Copper..........8.89—3.2 times weight of aluminum

Steel...........7.86—2.88 times weight of aluminum

Aluminum, as may be seen, has a weight of roughly one third of Steel, Brass or Bronze.

#### Aluminum Alloy 3S:

This contains  $1\frac{1}{4}\%$  manganese to give it additional strength and resistance to corrosion.

Tensile strength in half hard 20,000 to 24,000 pounds.

An alloy recommended where no unusual stresses exist. Well suited to take polish, satin and similar finishes.

#### Aluminum Alloy 43S:

This contains 5% silicon added for additional strength and resistance to corrosion.

Tensile strength 21,000 to 25,000 pounds.

Has much the same qualities as Alloy 3S but slightly preferable to the former for its somewhat greater strength.

#### Aluminum Alloy 51S:

This is one of the strong Aluminum alloys which, by heat treatment can further be strengthened. It contains 0.6% magnesium, 1.0% silicon.

Quenched temper is designated by adding initial "W." Heat Treated is designated by adding initial "T."

Tensile Strength:

51SW—30,000 to 40,000 pounds. 51ST —45,000 to 50,000 pounds.

Brinell Hardness:

51SW—55 to 70. 51ST —90 to 100.

Where great strength is required, use alloy 51SW. Where hardness for wear is necessary, use alloy 51ST. This finishes as well as alloys 3S or 43S.

#### Extrusion Tolerances:

For architectural shapes in alloy 3S, 43S, and 51S, the following extreme extrusion tolerances apply:

	Not Heat Treated + or —	Heat Treated + or —
up to .125	.007"	.010"
.126 to .500	.010"	.015"
.501 to 1.000	.015"	.020"
1.001 to 2.000	.017"	.025"
2.001 to 3.000	.020"	.030"
3.001 to 4.000	.025"	.035"
4.001 to 5.000	.030"	.045"
5.001 and over	.035"	.060"

Generally these tolerances are held considerably closer.

#### Finishes:

Aluminum lends itself very splendidly and readily to various finishes. Some of the more popular are high polish, satin finish, scratch brush finish, and sand blasting.

Aluminum can readily be plated. However, this seems to be uneconomical since polishing gives the same effect.

#### Working of Aluminum:

Aluminum can readily be worked with all the known shop means now existing. Files should be rather coarse, cutting tools, taps and drills are more satisfactory with shorter rakes, circular saws with coarse teeth are recommended. The usual metal band saws are satisfactory.

Aluminum is easily soldered and welded. Soldering is recommended only for interior work, while welding will give the same satisfactory results as other metals for all purposes. Some practice in both will be necessary and it is very essential that the proper flux and welding rod should be used.

We are prepared to assist the worker in metals with further data through pamphlets and personal assistance in working out the various problems.

#### SPECIFICATIONS:

All extruded Aluminum shall be of the thickness specified and where gauge is used Brown and Sharpe Gauge is to apply. All tubing shall be of gauges specified, the Birmingham Wire Gauge to apply. All extruded shapes shall be of 3S Alloy having a manganese content of  $1\frac{1}{4}\%$  or 43S Alloy having a silicon content of 5% except for members requiring additional strength in which case heat treated 51SW Alloy having 0.6% magnesium and 1.0% silicon is to be used. Where hardness is desirable such as in door saddles 51ST Alloy is to be used.

#### SERVICE:

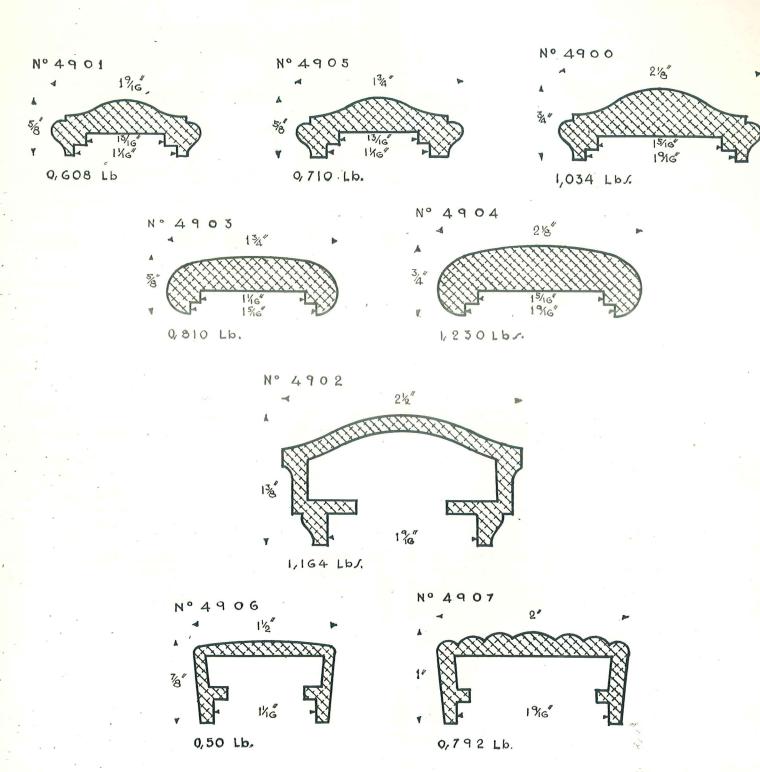
A large number of sections shown in this catalog are carried in stock. For many other sections dies are available. For a part of the proposed sections dies have not as yet been made up. The latter will be produced as the demand warrants.

For further information regarding the above see Stock List issued separately.

Flat, Squares and Angles are carried by other Distributors to whom we will gladly refer you.

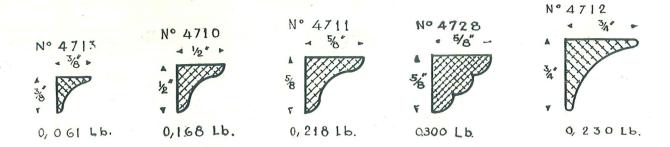
Sections are carried in stock in random lengths up to 16 feet. We have facilities in our warehouses to cut to specified straight lengths. From mill they can be furnished in any desired lengths.

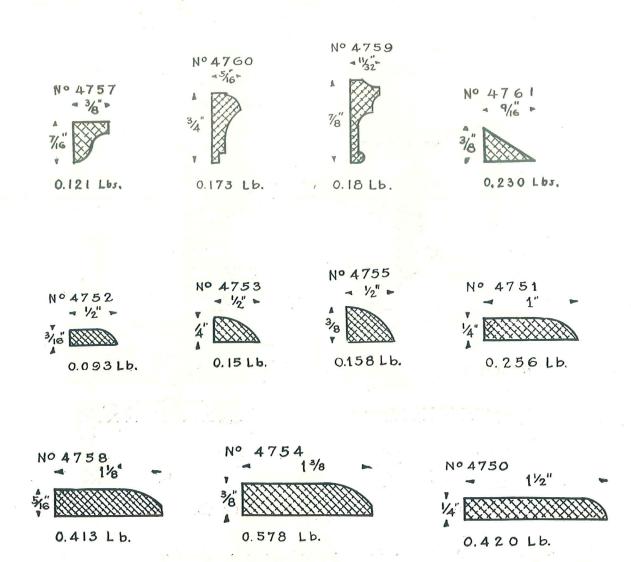
#### HANDRAILS



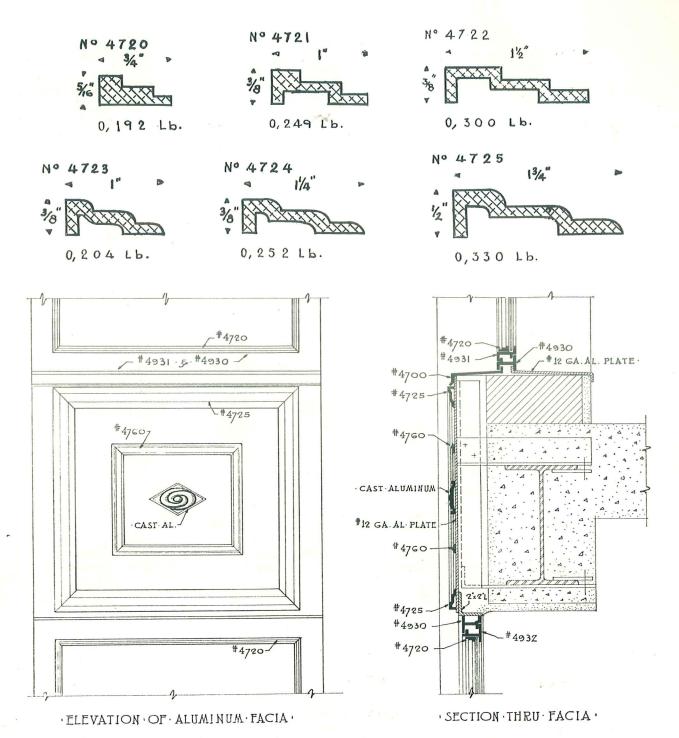
Aluminum handrails present various advantages. In either polished or satin finish their effect is very rich. The cost is reasonable and they can be worked with ease.

#### COVE and PANEL MOULDING





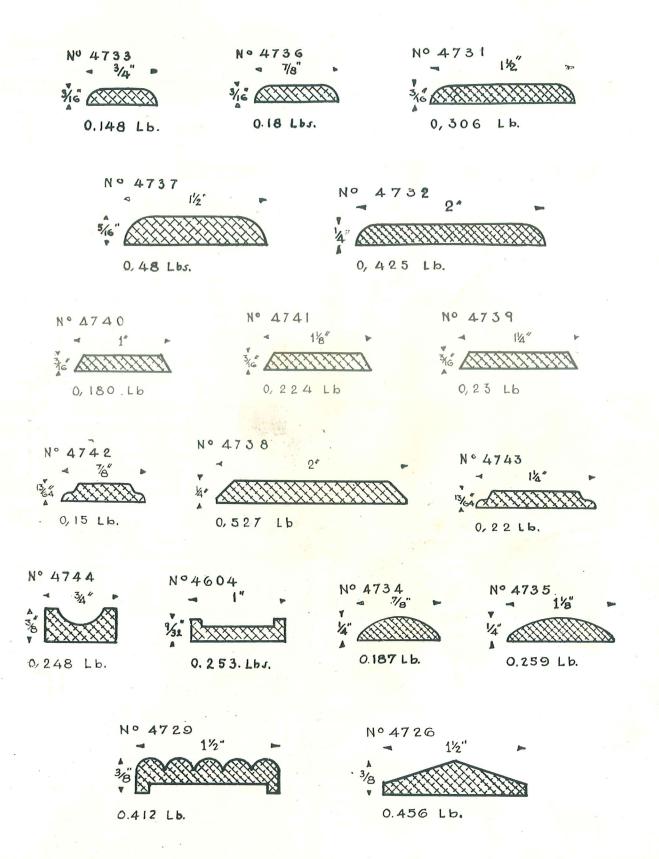
#### PANEL and SCRIBE MOULDING



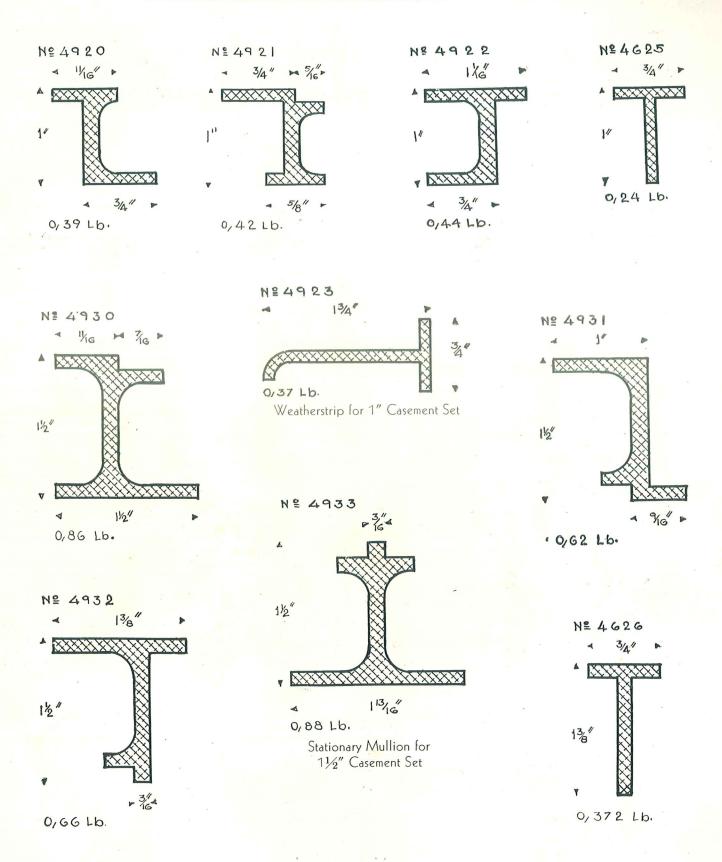
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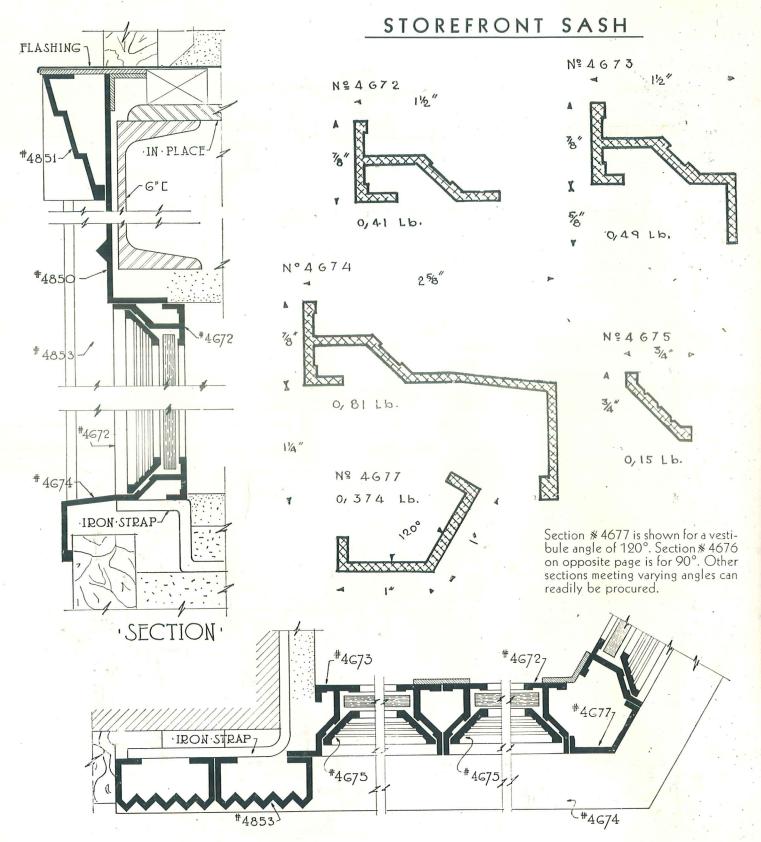
Very fine fascia effects can be worked out by applying to aluminum plate various sections illustrated in this catalog. The possibilities are unlimited since any shape to architect's design and requirement can be made.

#### ASTRAGALS and FACINGS



### CASEMENT and SASH SECTIONS

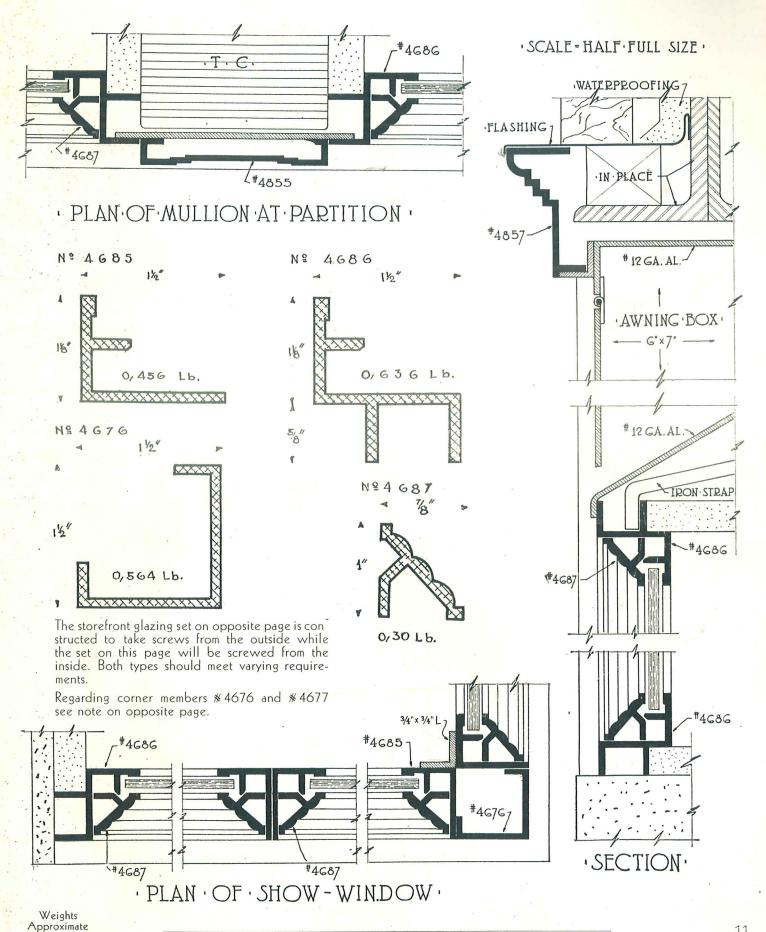




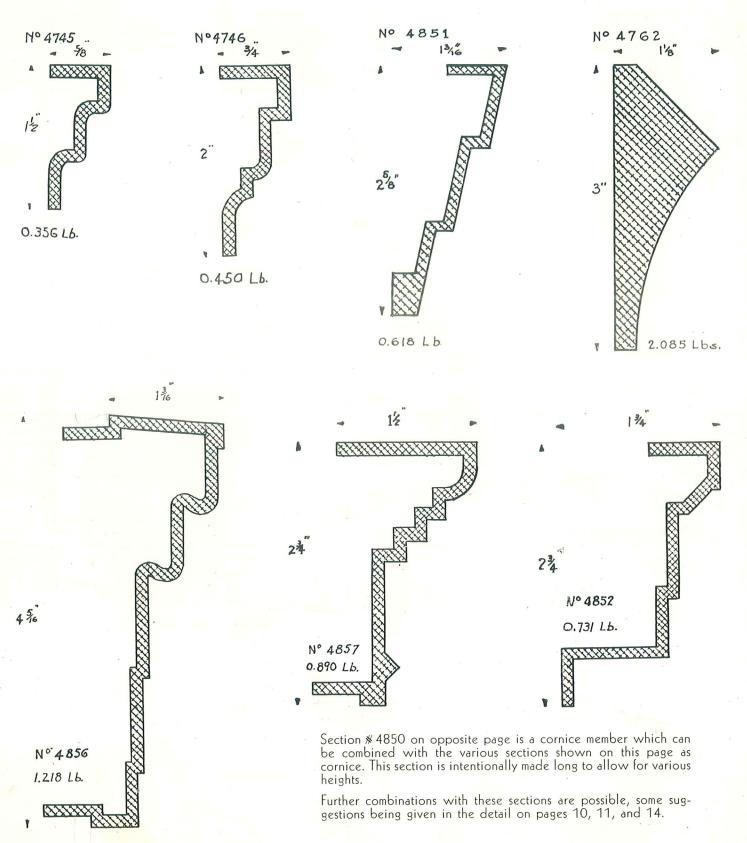
· PLAN · OF · SHOW - WINDOW ·

·SCALE = HALF · FULL · SIZE ·

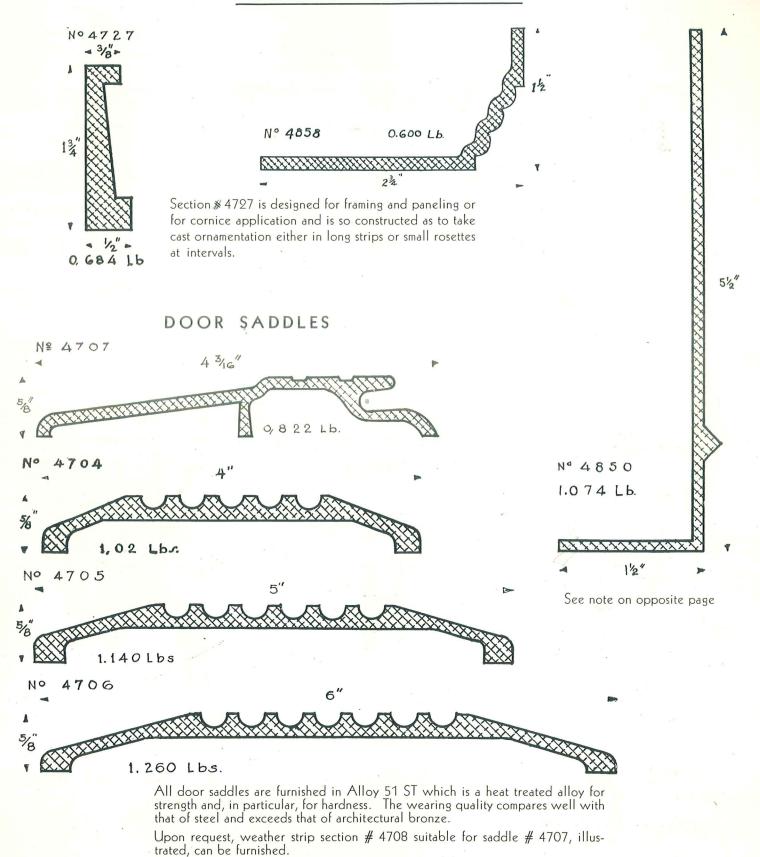
Weights Approximate



#### SCRIBE and CORNICE MOULDING

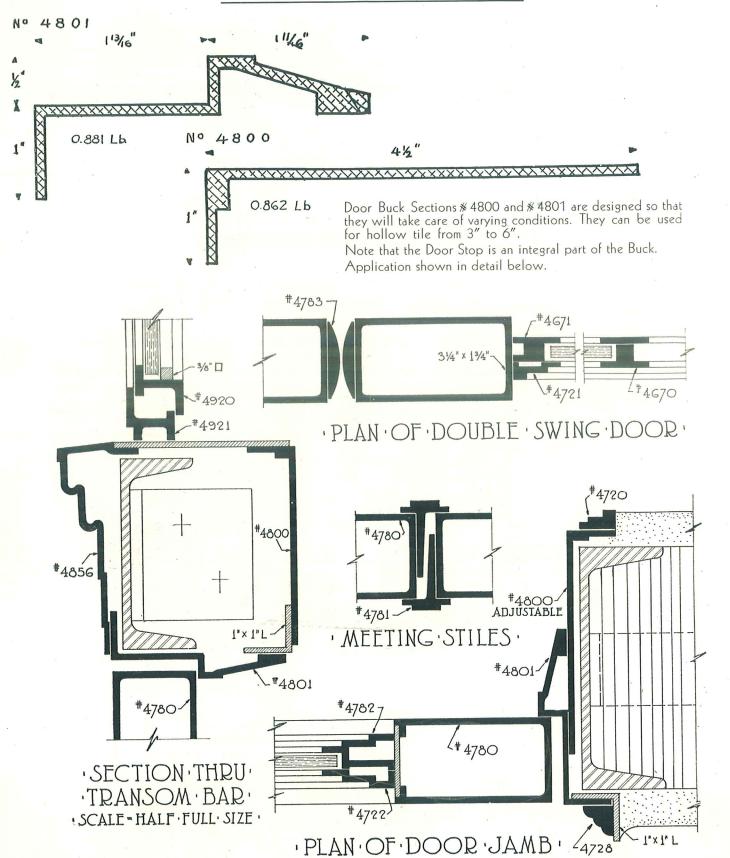


#### CORNICE MOULDING



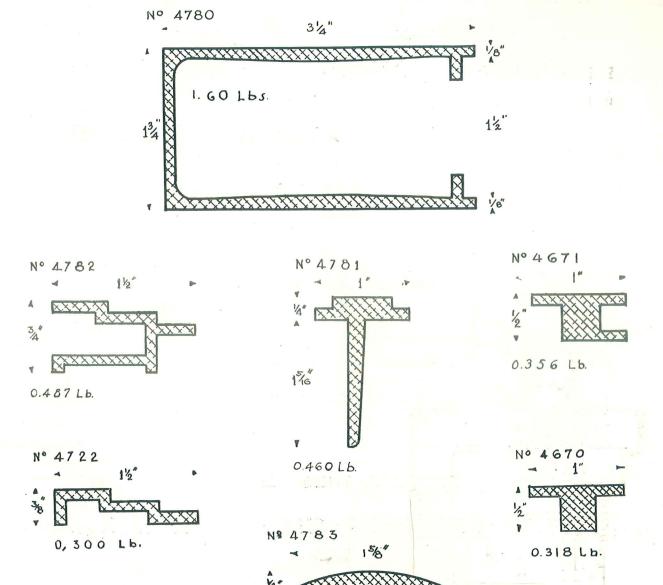
Weights Approximate

#### DOOR BUCK SECTIONS



Weights Approximate

#### DOOR and GLAZING MOULDING



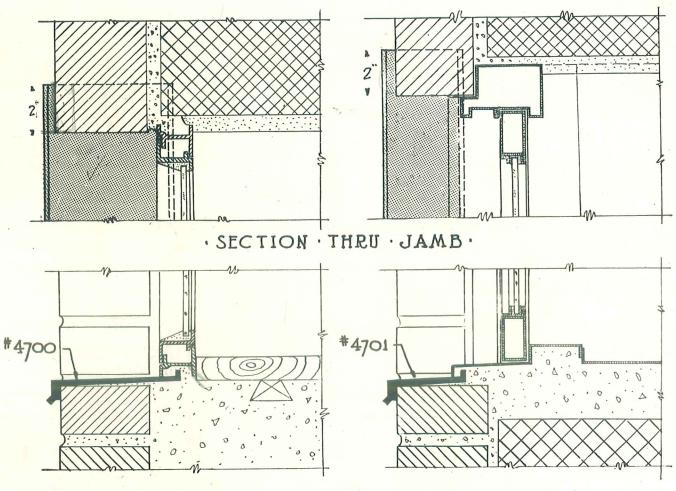
Door and Glazing sections shown on this page can find a variety of uses. Some interesting suggestions are given in the detail on the opposite page.

0,372 Lb.

For the construction of doors refer also to page 18 of Channels and Seamless Tubing.

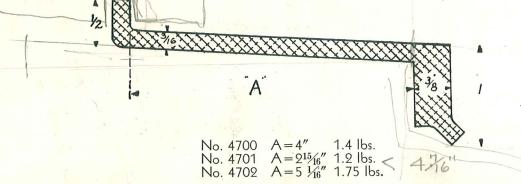
In this first issue of our catalog we show only one type of Style, Rail and Meeting Bar. Any other design can be made up on special orders and other sections will be developed in time as the demand requires.

#### WINDOW SILL



SECTION . THRU . SILL .

## TYPICAL DETAIL OF SILL INSTALLATIONS.

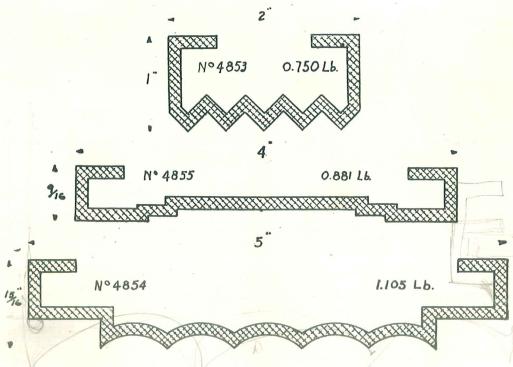


Aluminum Window Sill, while novel to many, is no longer novel in the building field. Numerous large and small building operations have utilized them for the great advantages in utility wearing quality, initial and up-keep costs they offer.

It is not too optimistic to state that ere long their use will be universal.

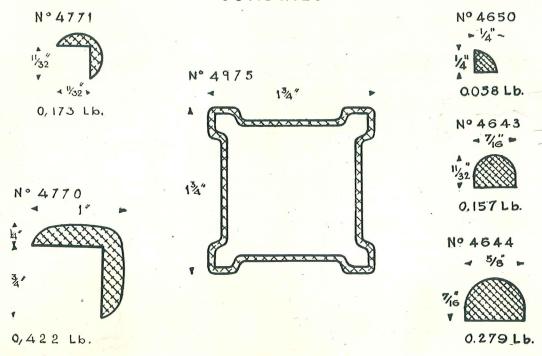
Weights Approximate

#### PILASTER SECTIONS



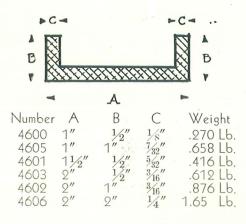
Very fine pilaster effects can be obtained with the use of plate and scribe moulds on page 3; also by using facings on page 4, particularly so, \$4729 and \$4726, applying them successively to a plate. Half-Rounds on page 18 are also well suited for this work. See illustration in detail on pages 10 and 11.

#### SUNDRIES



#### MISCELLANEOUS

#### **CHANNELS**



#### SEAMLESS TUBING



#### **SQUARE**

$\frac{1}{2}''$ $\frac{3}{4}''$ $1''$	×	$\frac{1}{2}''$	X	16B	WG
3/4"	X	3/1"	×	16	
		1"	X	16	
1½" 2"	X	11/2"	×	14	"
2"	Χ	2"	X	14	

#### RECTANGULAR

13/8"	X	1"	X	16BWG	
11/2"	X		×	18 ''	
11/2"	×	1"	×	11 "	
2"	×	1"	×	14 ''	
21/2"	X	11/4"	×	14 ''	
3"		13/4"	×	11 "	
3"		2"	X	11 "	
31/4"	×	13/4"		12 ''	

#### HALF ROUND and OVAL



#### HALF ROUND

Number	A	В	Weight
4640 4641	3/8" 1/2"	3/16" 1/4"	.068 Lb. .115 Lb.
4642	5/8"	5/16"	.180 Lb.

#### HALF OVAL

4734 7/8" 1/4" .187 Lb. 4735 11/8" 1/4" .259 Lb.

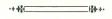
			NE SCR OY 17 ST			WOOD SCREWS ALLOY 17 ST	RIVETS ALLOY 3S
Diam. 6 6 6 8 8	Threads 32 32 32 32 32	3/8" 1/2" 3/4" 1/2" 3/4"	Flat Csk.  X X X X	Round X X X X	Jackson Head X X X X X	Flat Csk.  6 × ½" 6 × ¾" 8 × 1" 10 × 1½" 12 × 2"	Flat Csk. $     \begin{array}{rcl}         & 1 & 8'' \times & 1 & 2'' \\         & 1 & 8'' \times & 3 & 4'' \\         & 3 & 6'' \times & 3 & 4'' \\         & 3 & 6'' \times & 1''     \end{array} $
10 10 10 14" 14" 14"	32 32 32 20 20 20	1/2" 3/4" 1" 1/2" 3/4" 1" 1/2" 3/4" 1"	X X X	×	X X X 	Oval Csk.  8 × 1"  10 × 1½"	Round  1/8" × 1/2"  1/8" × 3/4"  3/6" × 3/4"  3/6" × 1"

All Screws and Rivets furnished in Bright Finish.

X Carried in stock.

#### SYNOPSIS OF CATALOGS

We take pleasure in giving below the numbers of our various catalogs together with a description of their contents. If they are not on file they will be gladly furnished.



#### Catalog #30 STEEL MOULDING: Containing

Mouldings in the modernist manner,
Handrails,
Baluster Iron,
Panel and Scribe Mouldings,
Cornice and Cap Mouldings,
Stair Nosings,
Door Saddles,
Sash Mouldings and Glass Bars,
Astragals and Facings,
Crestings and other shapes.

Iron workers Sundries Consisting of Baluster Collars, Square and Rectangular Tubing, Hardware, Pickets and Balls, Finials, Forged Nails, etc.

#### Catalog #18 WROUGHT IRON ORNAMENTS:

Containing

A selection of closely 4000 different ornaments from the most delicate to pieces 4 feet long. The assortment contains all manner of leaves, husks, flowers, branches, animals and many other designs.

This material being forged out of heavy stock is suitable for outside application.

## Catalog #20 LIGHT IRON ORNAMENTS and IRON PRODUCTS: Containing

A large variety of stamped ornaments in heavy gauge. The display embraces rosettes, husks, leaves, flowers and crestings. This material is recommended for interior application. This catalog, further, displays a variety of mouldings, tubings, pickets, balls and rivets, nails, etc., suitable for interior ornamental iron work.

#### Catalog #21 STAMPED IRON ORNAMENTS:

A supplementary catalog to Catalog #20.

## Catalog #26 PERFORATED STEEL SHEETS: Containing

30 different and beautiful perforated sheets suitable for radiator covers, ventilating grilles and many other purposes. Reference is made in this catalog to other materials applicable to all manner of grille work. It is profusely illustrated with details and illustrations.

## Catalog #28 YE FORGED LINE OF COLONIAL HARDWARE: Containing

Many items of hardware carefully designed and beautifully executed in the Colonial Manner. It, further, displays forged nails, lanterns and ornaments for wall decorations.

# Catalog # 29 WROUGHT IRON DRAPERY HARDWARE: An interesting booklet containing

Complete Curtain Poles, Window Cornices, Pole Brackets and Ends, Center Motifs, Curtain Poles and Rings, Tiebacks.

One of the most comprehensive and interesting displays of genuine wrought iron drapery hardware.







#### J. G. BRAUN COMPANY

609-615 South Paulina Street Chicago, III. 537-541 West 35th Street New York, N. Y. 636 Potrero Avenue San Francisco, Cal. 1205 East 8th Street Los Angeles, Cal.

## Architectural Shapes in "ALCOA" ALUMINUM

Stocklist No. 1 to Catalog 31

Stock Number	Catalog Page	(a) Alloy	Carried in Stock	(b) Dies Available	(c) Dies Not Available	Stock Number	Catalog Page	(a) Alloy	Carried in Stock	(b) Dies Available	(c) Dies Not Available
4600	18	435	X			4707	13	51ST	X		
4601	18	435	×			4710	6	435	×		100
4602	18	435	X			4711	6	435	X		
4603	18	435	X			4712	6	435		X	
4604	8	435		X		4713	6	435		X	
4605	18	435		X		4720	7	435	X		
4606	18	435		X		4721	7	435	X		
4625	9	435		X		4722	7 & 15	435	X		
4626	9	435		X	7.48	4723	7	435	X	2.	
4640	18	435	X			4724	7	435	X	3.45	
4641	18	435	X			4725	7	435	X		
4642	18	435	X			4726	8	435		X	
4643	17	435		X		4727	13	435		X	
4644	17	435		X		4728	6	435			X
4650	17	435		X		4729	8	435			X
4670	15	435		Χ.		4731	8	435		X	
4671	.15	435		X	4	4732	8	435		X	
4672	10	435			X	4733	8	435		X	
4673	10 .	435		va	X	4734	8	435		X	
4674	10	435			X	4735	8	435		X	
4675	10	435			X	4736	8	435	1	X	
4676	11	435			X	4737	8	435		X	
4677	10	435			Χ .	4738	. 8	435		X	
4685	11	435			X	4739	8 .	435		X	
4686	11	435			X	47.40	. 8	435		X	
4687	11.	435			X	4741	.8	435		X	
4700	16	435	X	::		4742	. 8	435		X	
4701	16	435		X		4743	8	435		X	
4702	16	435	::	X		4744	8	435		X	
4704	13	51ST	X			4745	12	435		E. OUR	X
4705	13	51ST	X	•••		4746	12	435			X.
4706	13	51ST	×			4750	6 .	435		X	

Note (a) This denotes the Aluminum Alloy in which sections are carried in Stock or recommended. All sections can be furnished in other Alloys from mill if desired.

Note (b) Dies for these sections are available at mill and shipment can be made in 2 to 3 weeks. No charge for dies.

Note (c) Dies for sections in this column will have to be made up and shipment can be made in 4 to 5 weeks. Dies charged at moderate cost.

#### Architectural Shapes in ALUMINUM

Stocklist No. 1 to Catalog 31 (Continued)

Stock Number	Catalog Page	(a) Alloy	Carried in Stock	(b) Dies Available	(c) Dies Not Available	Stock Number	Catalog Page	(a) Alloy	Carried in Stock	(b) Dies Available	(c) Dies Not Available
4751 4752 4753 4754 4755 4757 4758 4759 4760 4761 4762 4770 4771 4780 4781 4782 4783 4800 4801 4850 4850	6 6 6 6 6 6 6 6 6 6 6 6 7 17 17 15 15 15 15 14 14 14 13	43S 43S 43S 43S 43S 43S 43S 43S 43S 43S	In Stock	X X X X X X X X X X X X X X X X X X X	Available	4854 4855 4856 4857 4858 4900 4901 4902(d) 4903 4904 4905 4906 4907 4920 4921 4922 4923 4930 4931 4932 4933	17 17 12 12 13 5 5 5 5 5 5 5 5 5 5 5 9 9 9 9 9 9	43S 43S 43S 43S 43S 43S 43S 43S 43S 43S	:		X X X X X X X X X X X X X X X X X X X
4852 4853	12 17	43S 43S		 	×	4975	17	51SW		X	LIKS.
	Land Street			The second of	THE HAMP SALES	1 2 2 1 1		Comments of the same	The second second		

Stock Number	Catalog Page	(a) Alloy	Carried in Stock	(b) Dies Dies Not Available Available		Stock Number	Catalog Page	(a) Alloy	Carried in Stock	(b) Dies Available	(c) Dies Not Available
Tubing Square  ½x ½x16 Ga. ¾x ¾x16 Ga.  1 x1 x16 Ga.  1½x1½x14 Ga. 2 x2 x14 Ga.	18 18	51SW 51SW 51SW 51SW 51SW	× × × ×			Rectangular 2 x1 x14 Ga. 2½x1¼x14 Ga. 3 x1¾x11 Ga. 3 x2 x11 Ga. 3⅓x13¼x12 Ga.		51SW 51SW 43S or 51SW 43S or 51SW 51SW		 X X	
Rectangular 13/8×1 ×16 Ga. 11/2× 3/4×18 Ga. 11/2×1 ×11 Ga.	18	51SW 51SW 43S		X X X	TON CO	Machine Screws Rivets Wood Screws	18 18 18	17ST 3S 17ST	×××		

Note (a) This denotes the Aluminum Alloy in which sections are carried in Stock or recommended. All sections can be furnished in other Alloys from mill if desired.

Note (b) Dies for these sections are available at mill and shipment can be made in 2 to 3 weeks. No charge for dies.

Note (c) Dies for sections in this column will have to be made up and shipment can be made in 4 to 5 weeks. Dies charged at moderate cost.

Note (d) This section will be carried after present supply is exhausted in Alloy 43S.